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(71) Applicant (for all designated States except US): **NEC Corporation** [JP/JP]; 7-1, Shiba 5-chome, Minato-ku, Tokyo 1088001 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CHUNG, Edwin** [AU/AU]; c/o NEC Australia Pty. Ltd., 635 Ferntree Gully Road, Glen Waverley, Victoria 3150 (AU).

(74) Agent: **MARUYAMA, Takao**; Maruyama Patent Office, SAM Build. 3floor, 38-23, Higashi-Ikebukuro 2-chome, Toshima-ku, Tokyo 1700013 (JP).

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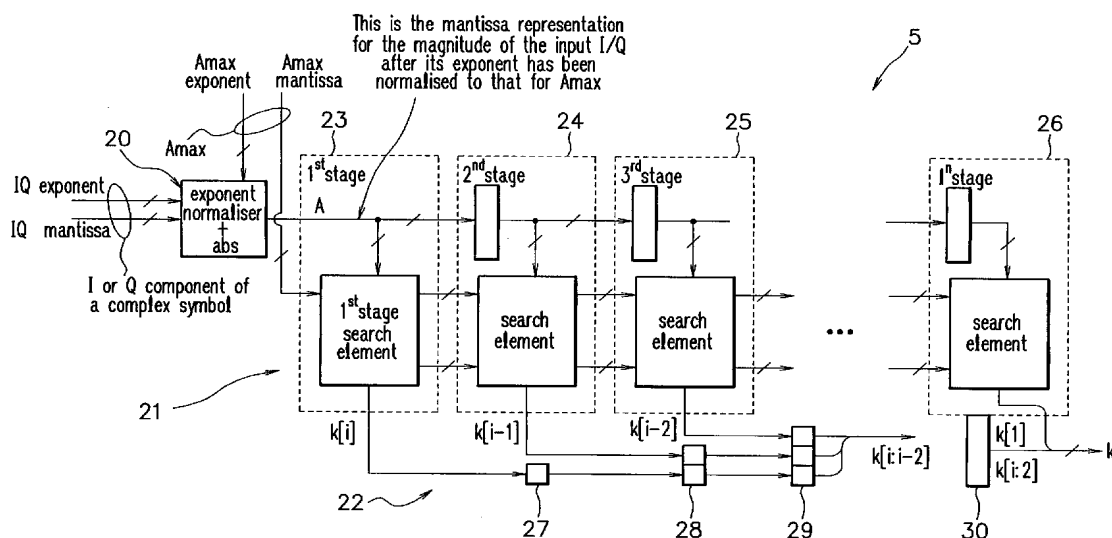
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(54) Title: DEMODULATION OF A MULTI-LEVEL QUADRATURE AMPLITUDE MODULATION SIGNAL



(57) Abstract: A device (5) for determining k representative of the magnitude A of an orthogonal component of a Quadrature Amplitude Modulation (QAM) symbol, including: multi-stage binary search circuitry (21) for conducting a multi-stage binary search for the value of A between predetermined maximum and minimum values Amax and Amin, each stage producing a single bit binary output; and integer value construction circuitry (22) for constructing the integer value k by juxtaposing the binary outputs from consecutive stages of the binary search, where $W = (A_{\max} - A_{\min})/n$, n equals 2^i and i is an integer, Amax is a maximum detectable level of the magnitude A, Amin is a minimum detectable level of the magnitude A, and W is the incremental level between consecutive values of the integer value k.



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